

Title: Detection & Control of Invasive Species in Maui County
Organizations: Maui & Moloka'i Invasive Species Committees
Award: \$203,078



Introduction: Invasive species threaten Maui County's life-giving watersheds, agricultural sustainability, extraordinary biological diversity, and quality of life. HISC funding supported detection and control work on 33 plant species, 3 vertebrate species, 1 invertebrate species, 1 aquatic species, and 2 plant pests. Work conducted by staff from the Maui Invasive Species Committee (MISC) and Moloka'i Invasive Species Committee (MoMISC) benefited from strong partner support. The Hawai'i Invasive Species Council provided approximately 11.5 percent of total FY13 funding (\$1.9 million) for the projects. HISC funds were matched 7:1 with support from county, federal, and private sources. This report covers activities from December 1, 2012 through July 31, 2013.

Achievements in FY13

Deliverable 1: Implement priority-setting process. Target species selection was based on threats to the environment and economy, feasibility of control, and cost of control. MISC held an annual priority-setting workshop which formed the basis for survey and detection work.

Deliverable 2: Meaningful participation by partner agencies and community. Each Committee is comprised of local resource managers, scientists, and agency representatives who help set priorities, provide guidance, and assist with securing financial support. During the reporting period the MISC Committee met three times and MoMISC held two meetings. Meeting topics focused on overall progress on plant and vertebrate targets, and outreach and education. MISC staff and committee members also met three times to review miconia and pampas grass operations. Contributed field time totaled 664 hours. Volunteers contributed 843 hours.



Future conservation workers: high school volunteer trip to Hāna

Deliverable 3: Target 26 invasive species for detection and control activities. MISC and MoMISC conducted survey and detection activities on 38 species, including 33 plant species, 3 vertebrate species, 1 invertebrate (little fire ant), 1 invasive jellyfish, and 2 plant pests. The following numbers of invasive species were removed from the islands of Maui County: 27,992 plants; 1,000s of coqui frogs, 1,362 banana plants for BBTv. The total area surveyed was more than 22,959 acres; an estimated 303 acres were treated. MoMISC assisted with early detection surveys for *Myoporum* thrips.

Deliverable 4: Number of species detected and evaluated for feasibility of eradication. 1 - *Atriplex lentiformis* (quail bush) - Moloka'i.

Deliverable 5: Address specific widespread vertebrate pests. MISC staff played a leadership role in developing and implementing a comprehensive island-wide management plan for axis deer.

Deliverable 6: Reduce coqui frog populations on state lands. A large breeding population of coqui frogs is established in Māliko Gulch; the eastern half of the gulch is state land. Work focused on reducing the gulch population to prevent further expansion of coqui outside the gulch. Resources are not currently adequate to address the Māliko Gulch infestation. New reports of coqui frogs are increasingly common on Maui.

Deliverable 7: Contain or eradicate target species. With the exception of miconia on Maui, the number of mature targeted invasive plants is stable or declining on all islands. Outlier populations of miconia on Maui are in decline; the core infestation is being contained at the perimeter but growing more dense within the core. All new coqui frog reports on Maui, Molokaʻi and Lānaʻi had immediate and successful responses. No veiled chameleons have been detected since 2008. Mitred conure numbers are declining. Early detection surveys continued for little fire ant, including areas around the only known location on Maui with no detections.

Deliverable 8: Facilitate public process on agency jurisdiction and responsibility. MISC staff chaired the CGAPS Steering Committee during initial statewide efforts to develop a Plant Health Emergency Response Plan. Staff gave several presentations focused on this issue.

Deliverable 9: Present results at professional conferences. Staff and partners presented results at the Hawaiʻi Conservation Conference and Weed Science Society of America conference.

Other Activities in FY13

Other activity 1: Collaborate with other partner agencies on invasive species issues. MISC and MoMISC staff participated in local and state-wide organizations focused on protecting important conservation and agricultural lands in Hawaiʻi. Staff served on the Legacy Land Commission, Molokaʻi Planning Commission, Aha Moku Council, Coordinating Group on Alien Pest Species Steering Committee, Maui Axis Deer Working Group, Maui Conservation Alliance and other community organizations. MoMISC hosted Congresswoman Tulsi Gabbard for an overflight tour of northshore Molokai. MoMISC and MISC hosted Senator Mike Gabbard for a tour of invasive species work on each island. MISC provided office space for the Weed Risk Assessment technician and Maui Axis Deer Coordinator.

Other activity 2: Recognitions/Awards. MISC was recognized as one of three local "heroes" by Maui's public access TV station Akakū.

Additional Information

The proposal for funding covered a full twelve months, while the reporting period covers only eight months. Despite that discrepancy, achievements met or exceeded most of the proposed deliverables. MISC and MoMISC are projects of the University of Hawaiʻi – Pacific Cooperative Studies Unit.

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